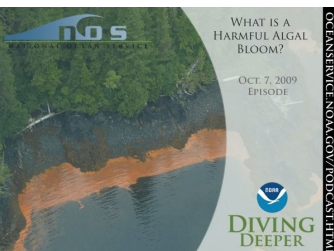


# Plankton News

The Newsletter of the Phytoplankton Monitoring Network



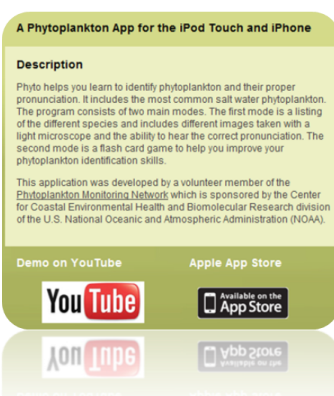
## PMN Featured in NOS Podcast

Listen to the October 7th edition of [Diving Deeper: Harmful Algal Blooms](#) to learn about what harmful algal blooms are, where they can occur, and what you can do to help.

## News

- 🔗 [Diving Deeper](#)
- 🔗 [Phyto iPhone App](#)
- 🔗 [Species Spotlight](#)
- 🔗 [From the Desk of Dr. Morton](#)
- 🔗 [Atlantic Region](#)
- 🔗 [Gulf Coast Region](#)
- 🔗 [Pictures Around PMN](#)
- 🔗 [News, Notes & Trainings](#)

## Items



## Phytoplankton on iPhone

New PMN volunteer Shawn Gano from Texas created the [Phyto](#) iPhone application highlighting common Gulf of Mexico phytoplankton. The application contains PMN pictures and pronunciations along with a flash card portion which aids in enhancing identification skills.

**Note:** This iPhone application was created using information drawn from the PMN web site. Mention of products or manufacturers does not constitute an endorsement by NOAA or the Department of Commerce, as NOAA does not exercise any editorial control over the information provided by such products or manufacturers.

## Species Spotlight: *Pyrodinium bahamense*

*Pyrodinium bahamense* is a species of dinoflagellate found in subtropical to tropical waters. It is an interesting species, because it is one of nine dinoflagellates known to be bioluminescent. In fact it derives its name from that very characteristic (Pyro = Fire). This species is also of interest as it has recently been shown to produce saxitoxin, which can cause Paralytic Shellfish Poisoning. This species can be identified by its apical horn, comma shaped apical pore cover, pronounced cingulum groove, and antapical spine. The cell is roughly circular with the epitheca and hypotheca being about the same size. These cells are typically between 42 and 44 µm in diameter. The cingulum groove is displaced by approximately its width, and the left antapical spine is usually twice the size of the spine on the right. Many of these features are distinct enough that they are discernable with a light microscope. There are two distinct varieties of this species; the Indo-Pacific variety, (var. *compressum*) which is slightly more compressed than the Atlantic variety

(var. *bahamense*). The Indo-Pacific variety is also known to form chains, while the Atlantic variety is usually found as a single cell. The Atlantic variety is typically isolated to around Florida and the Caribbean Sea, while the Indo-Pacific variety is found from Mexico to the Philippines. This species is known to be the source of saxitoxin causing puffer fish to become toxic in the Northern Indian River Lagoon, Florida.

### References:

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Morquero, L., 2008. Morphology of *Pyrodinium bahamense* Plate (Dinoflagellata) near Isla San Jose', Gulf of California, Mexico. Harmful Algae 7 664–670.

Tomas, C.R. (ed.), 1997. Identifying Marine Phytoplankton. Academic Press, San Diego.

## From the Desk of Dr. Morton

It has been a busy summer around the PMN. We are starting our 9<sup>th</sup> year of sampling. Thanks again for all your help to make this program successful. As you may have already noticed, we have recently redesigned our web site. If you see anything that can be improved upon, please feel free to contact us. One of the major overhauls of the site is the image gallery which will continue to be updated. The new image gallery will include light and electron micrographs of each species along with movies of each species which moves. Also included in the site is the pronunciation of each species. The voice you hear is our own web site coordinator, Kimberly.

We are also changing the format of the "Plankton News". We will be having a shorter version of the newsletter being sent out every other month to keep everyone updated on the PMN and other Harmful Algal News from the United States and around the world.

Starting next month, I will be teaching my HAB taxonomy class. This once-a-month class will teach basic phytoplankton taxonomy along with the taxonomy of each toxin producing group. The first class will be October. If you would like to participate in the class via WebEx, call Jeff Paternoster or Matt Brim.

## Atlantic Regional Story

The PMN on the Atlantic coast is "blooming" with volunteer involvement and new sites are being established every month. Beginning in early September new sites were established in New York (NY) and Connecticut (CT) setting the foundation for future volunteer monitoring in these coastal waters. The volunteers at these sites will provide phytoplankton data from coastal waters yet to be examined by PMN staff. Newly established sites in NY and CT will allow our volunteers and staff to observe the phytoplankton activity in the Hudson and East Rivers, Jamaica Bay, and Long Island Sound. We look forward to establishing more sites in NY and CT as well as other northeastern states in the upcoming year.

Phytoplankton monitoring continues in the largest estuary in the United States, the Chesapeake Bay. PMN volunteer data collection and analysis provides a good assessment of the phytoplankton abundance and distribution in this important ecosystem. With help from the NOAA Chesapeake Bay Office and Dr. Doug Levin we look forward to expanding our efforts to more sites in the Chesapeake Bay region.

## Gulf Coast Regional Story

Produced by the Phytoplankton Monitoring Network

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